#### X REMARKS: WELL LOG ELECTRIC LOGS FILE WATER SANDS LOCATION INSPECTED

LAND: FFF & PATENTED STATE LEASE NO PUBLIC LEASE NO 12-11-86DRILLING APPROVED SPUDDED IN COMPLETED: PUT TO PRODUCING:

1-21-87 UNDESIGNATED

SAN JUAN

500' FNL

RGE.

FEDERAL 1-31

SEC.

12-5-86

DATE FILED

INITIAL PRODUCTION: GRAVITY A.P.I GOR:

PRODUCING ZONES: TOTAL DEPTH: WELL ELEVATION:

DATE ABANDONED

FIELD: UNIT:

COUNTY:

WELL NO.

LOCATION

TWP

LAID

FT. FROM (N) (S) LINE,

**OPERATOR** 

1800' FWL

LITAH OIL AND GAS CONSERVATION COMMISSION

FT. FROM (E) (W) LINE.

TWP.

38S

RGE.

26E

U-51688

NE NW

SEC.

31

API #43-037-31297

**OPERATOR** 

1/4 - 1/4 SEC

SUB. REPORT/abd

INDIAN

SANTA FE ENERGY OPERATING

31

7-7/8"

# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES

SUBMIT IN The (Other instructions on reverse side)

U-51688

5. Lease Designation and Serial No.

	DIVISION OF CIL,	GAS, AND MINING		
APPLICATION	FOR PERMIT T	O DRILL, DEEP	EN, OR PLUG BACK	6. If Indian, Allottee or Tribe Name
1a. Type of Work  DRIL	L 🛛	DEEPEN	PLUG BACK	7. Unit Agreement Name
b. Type of Well Oil	S Other		Single Multiple Zone Zone	8. Farm or Lease Name FEDERAL
-	IERGY OPERATI	NG PARTNERS,	, L.P.	9. Well No. #1-31
4. Location of Well (Repor	m Place, Ste		re requirements *)	10. Field and Pool, or Wildcat  Wildcat UNDES/GNATE
At proposed prod. zone	FNL & 1800' 5800' Deser		1 ME/NW	11. Sec., T., R., M., or Blk. and Survey or Area
14. Distance in miles and				Sec 31 T38S-R26E  12. County or Parrish 13. State
25 miles SV  15. Distance from propose location to nearest property or lease line, (Also to nearest drig. li	ft. 500!		No. of acres in lease 17. No.	San Juan Utah  Jo. of acres assigned by this well 40
18. Distance from proposet to nearest well, drilling or applied for, on this	l location*	19.	Proposed depth 20. R	40 otary or cable tools Rotary
21. Elevations (Show wheth				22. Approx. date work will start*  January 30, 1987
23.		PROPOSED CASING AN	ND CEMENTING PROGRAM	
Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
17-1/2"	13-3/8"	54.5	60'	Circulate
12-1/4"	8-5/8"	24	1600'	Circulate

Permission requested to build location and drill. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per the Bureau of Land Management and the State of Utah's requirements.

5780'

Onshore Oil & Gas Order #1 w/attachments.

5-1/2"



350 sks

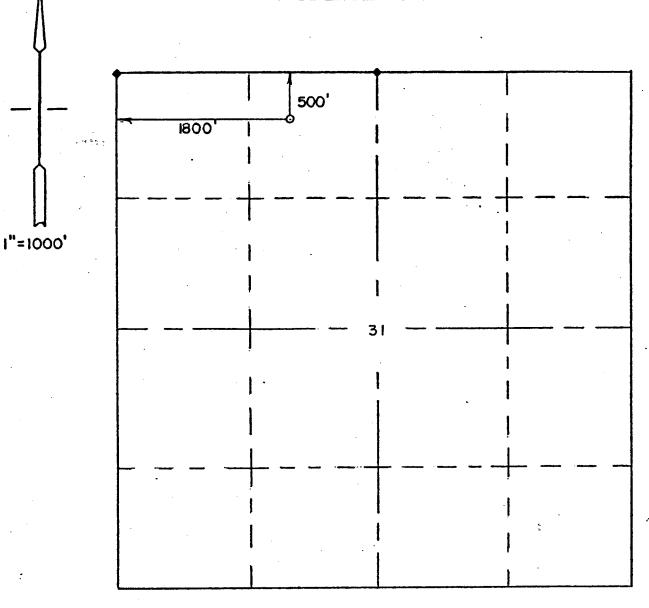
# **DIVISION OF**

302

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: luctive zone. If proposal is to drill or deepen directionally preventer program, if any.	OIL. GAS  If proposal is to deepen or plug back, give data on present pro y, give pertinent data on subsurface locations and measured and	6 & MINING oductive zone and proposed new pro- d true vertical depths. Give blowou
Signed Jack H. White	Title Dist Drilling Supt.	Date. 12/2/86
(This space for Federal or State office use)		
Permit No	Approval Date APPROVED BY OF UTAH DIV	IICIONI OF
Approved byConditions of approval, if any:		D MINING

\*See Instructions On Rever # 514





## WELL LOCATION DESCRIPTION:

SANTA FE ENERGY CO. LP
FEDERAL 1-31
500'FNL & 1800'FWL
Section 31, T.38 S., R.26 E., SLM
San Juan County, Utah
4917' grd. elevation

The above plat is true and correct to my know | Noge 5705 be lief.

1-'86 Ger

Gerald G Huddleston, L

OF Y

11-04-'86

#### DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

All leases and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

1. The estimated tops of important geologic markers are as follows: Ground elevation @ 4917'.

<u>Formation</u>	Vertical Depth	Subsea Depth
Cutler	2450'	+2627
Hermosa	4385 '	+ 692'
Upper Ismay	5405 <b>'</b>	- 328'
Lower Ismay	5610 <b>'</b>	- 5331
Upper Desert Creek	5670 <b>'</b>	- 5931
Lower Desert Creek	5725 *	- 648'
Lower Desert Creek "B"	5740 <b>'</b>	- 663'
T.D.	<b>5780'</b>	- 703'

2. a. The estimated depths at which the water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	<u>Depth</u>
Water	Navajo	1100'
Water	Ismay	5400 <b>'</b>
Oil & High Pressure Gas	Desert Creek	5670-5740'

No known mineral deposits are anticipated or will be penetrated.

- b. Santa Fe Energy Operating Partners L.P. plans to protect all surface fresh water zones by running a sufficient amount of 8-5/8" long surface casing.
- 3. Santa Fe Energy Operating Partners L.P. minimum specifications for pressure control equipment are as follows:

Equipment will be tested prior to drilling out from under surface casing and operational checks will be made daily thereafter. Blind and Pipe Rams will be tested to their rated working pressure, casing and head to 70% at the interval yield pressure. BOP's will be tested prior to drilling out of each casing shoe and at least every 30 days. The BOP will also have manual controls. A manifold and choke will be tested at its rated working pressure also.

4. a. The proposed casing program will be as follows:

Purpose	Depth	Hole Size	0.D.	Weight	Grade
Conductor	60'	17-1/2"	1 <del>3-3/8</del> "	Used	Pipe
Surface	1600'	12-1/4"	8-5/8"	24#	K-55
Produc.	58001	7-7/8"	5-1/2"	15.5#	K-55

All casing strings will be tested to 0.2 psi/ft. or 1000 psi, whichever is greater prior to drilling out.

5. The cement program will be as follows:

Conductor 0'-60'	Type and Amount Sufficient to circulate to surface.
Surface 0'-1600'	Type and Amount Sufficient to circulate to surface.
Production 0'-5800'	Type and Amount 350 sks or sufficient to cover zones of interest.

a. Auxiliary equipment to be used is as follows:

Upper and Lower Kelly Cock valves with safety valve for drill pipe on rig floor. Flow sensor and chromatograph by 3800'.

6. a. The proposed circulating mediums to be employed in drilling are as follows:

Interval	Mud Type	Mud Wt.	Vis	$\underline{\text{F/L}}$	PH
0-1600'	Spud	8.5-10	32-36	N/C	$\overline{10}$
3000'-T.D.	Gel-Chemical	8.3-11	32-50	18-6	10

The above mud system will be a Gel-Chemical type with adequate materials of supportive agents and other materials onsite to handle any anticipated down-hole problems as well as possible spills of fuel or oil on surface.

- 7. The anticipated type and amount of testing, logging and coring are as follows:
  - a. One drill stem test will be run in the Desert Creek formation. On site Geologist will have the option to test any hydrocarbon section deemed necessary.

- b. The logging program will consist of the following: Dual Induction Electric Log, SCP-T.D., Compensated Neutron Density and Caliper Log, minimum 2000'.
- c. One core may be possibly cut through the Desert Creek.
- 8. a. Expected bottom hole pressure is 2000 psi.
  - b. Desert Creek may have the potential to blow-out and extreme care will be initiated before entering.
  - c. No abnormal temperatures are anticipated.
  - d. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analysis, well test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4.

## 9. Other information.

- a. Santa Fe Energy Operating Partners L.P. proposes to spud the Federal #1-31 prior to January 30, 1987, and intends to complete the well within approximately one month after the well has reached T.D.
- b. It is anticipated the duration of drilling will be 15 days.
- c. The anticipated completion program is as follows: All hydrocarbon shows will be perforated and tested.
- d. No well abandonment operations will begin without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Manager. A "Subsequent Report of Abandonment" (Form 3160-5), will be filed with the District Manager, within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface operations.

### SURFACE USE PLAN

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

# 1. Existing Roads

a. Directions to the location from Pleasant View, Colorado are as follows:

Drive SW from Pleasant View, Colorado, on Hatch Road (Hovenweep) to Cajon Lake (approximately 22-1/2 miles). Turn NW at Y on Squaw Point road (approximately 3-1/4 miles). Location will be off road to left.

- b. Improvement to existing roads will not be necessary.
- c. Existing roads and newly constructed roads on surface under the jurisdiction of any Surface Managing Agency shall be maintained in accordance with the standards of the S.M.A.

# 2. Access Roads to be Constructed and Reconstructed

- a. All new roads to be built, or reconstructed roads are shown on location plat.
- b. Approximately 200' will be new access. It was centerline flagged at the time of staking.
- c. The maximum grade will be 2%.
- d. The maximum cut on location is 15 feet. The maximum fill is 2 feet.
- e. Drainage will be installed as deemed necessary by the operator and dirt contractor.
- f. Culverts will be installed as deemed necessary by the operator and dirt contractor.
- g. Cattleguards, gates or fence cuts will be as per landowner requires.
- h. Surfacing material will be placed on the access road and location as deemed necessary by the operator.
- i. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

j. If there is snow on the ground when construction begins, the operator will remove it before the soil is disturbed, and pile it downhill from the topsoil stockpile location.

# 3. Location of Existing Wells within a 1-Mile Radius of the Proposed Location.

- a. Water Wells None.
- b. Injection or Disposal Wells None.
- c. Producing Wells Section 25 & Section 30.
- d. Drilling Wells None.

# 4. Location of Existing and/or Proposed Facilities if the Well is Productive

- a. A central tank battery will be located at the wellsite if productive.
- b. All flowlines from the well site to battery site will be buried below frost line depth.
- c. A dike will be constucted completely around the production facilities (i.e. production tanks, water tanks, and/or heater-treater). The dikes for the production facilities must be constructed of compacted subsoil, hold the capacity of the largest tank, and be independent of the back cut. Any production pits will be fenced with at least four (4) strands of barbed wire and held in place by side posts and corner H-braces.
- d. Production facilities (including dikes) will be placed on the cut portion of the location.
- e. All access roads will be upgraded and maintained as necessary to prevent erosion and accommodate year-round traffic.
- f. Any necessary pits will be fenced to prevent wildlife entry.
- g. Produced waste water will be confined to an unlined pit for a period not to exceed 90 days after initial production. During that 90 day period an application for approval of a permanent disposal method and location (NTL-2B), along with the required water analysis will be submitted.
- h. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.

# 5. Location and Type of Water Supply

- a. The water will be purchased from Sunoco. The exact location of this water will be Benally's pond.
- b. Water will be hauled to the location along the approved access route.
- c. The souce of water is located on private lands.
- d. No water wells are to be drilled.

### 6. Construction Materials

- a. Surface and subsoil materials in the immediate area will be utilized.
- b. No construction materials will be removed from Federal lands.
- c. Gravel, stone and sand will be purchased from a commercial source.
- d. Any materials to be used which are under BLM jurisdiction shall be approved in advance, as per CFR 3610.2-3.

# 7. Methods for Handling Waste Material

- a. Drill cuttings are to be contained and buried in the reserve pit.
- b. Garbage and nonflammable waste are to be contained in the trash pit. Flammable waste is to be contained in the burn pit. The trash is to be burned periodically and the remains buried when the well is completed. The trash and/or burn pit will be totally enclosed on four sides and 3/4 of the top will small mesh wire to prevent wind scattering and wildlife entry. After the burn pit is no longer in use it will be covered with a minimum of 4 feet of earth. No trash is to be placed in the reserve pit.
- c. Any slats and/or chemicals which are an integral part of the drilling system will be disposed of in the same manner as the drilling fluid.
- d. If a chemical porta-toilet is not furnished with the drilling rig, a sewage borehole will be used and its contents covered with a minimum of 6 feet of fill upon well completion.
- e. The produced fluids will be produced into a test tank until such time as construction of production facilities is completed. Any spills of oil, gas salt water or other produced fluids will be cleaned up and removed.
- f. The reserve pit and drilling fluids contained in the pit will be allowed to dry. The pit will then be backfilled.

# 8. Ancillary Facilities

No camps, airstrips or other facilities will be necessary.

# 9. Wellsite Layouts

- a. The rig layout is shown on Diagram.
- b. A cross section of the well pad and cuts and fills are shown on Diagram.
- c. The location of reserve, burn pits, access roads onto the pad, turn around areas, parking areas, living facilities, soil material stockpiles and orientation of the rig with respect to the pad and other facilities is shown on Diagram.
- d. The reserve pit will be fenced on three (3) sides during drilling and the fourth side will be fenced at the time the rig is removed.

## 10. Plans for Reclamation of the Surface

The following surface reclamation will be done upon completion of the operations.

- a. The reserve pit, when dry, will be backfilled and the entire location will be reshaped to as near as possible its original contour.
- b. No alteration of the drainage will be necessary due to the location of the reserve pit.
- c. Topsoil and subsoil will be segregated and stockpiled near the location.
- d. During reclamation of the site, the operator will push fill material into the cuts and up over the backslope to approximate the original topography. No depressions will be left that trap water or form ponds.
- e. Waste materials will be disposed of as stated in #7 of this Surface Use Plan.
- f. Re-seeding will be done as per the Bureau of Land Management's requirements.
- g. Those areas not required for production will be landscaped to the surrounding topography.
- h. A Notice of Intent to Abandon and a Subsequent Report of Abandonment will be submitted for abandonment approval.

# 11. Surface Ownership

Wellsite - Bureau of Land Management Moab, Utah

Roads - Roads are maintained by the County or are on lands owned by the Bureau of Land Management.

## 12. Other Information

- a. Archaeology study by LaPlata Archaeology enclosed.
- b. If any cultural values are observed during construction and operations, they will be left intact and the Area Manager in Moab, Utah (801) 259-6111 will be notified.
- c. If patheontological resources, either large and conspicuous, and/or of significatnt scientific value are discovered during construction, the find will be reported to the Authorized Officer immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during operations.
- d. "Sundry Notice and Report of Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 32 CFR 3164.
- e. The dirt contractor will be provided with an approved copy of the surface use plan.

## 13. Lessee's or Operator's Representative and Certification

SANTA FE ENERGY OPERATING PARTNERS/L.P.
1616 Glenarm, Suite 2600
Denver, Colorado 80202
Jack H. White
District Drilling Superintendent

(W) 303/825-5101

(H) 303/424-2859

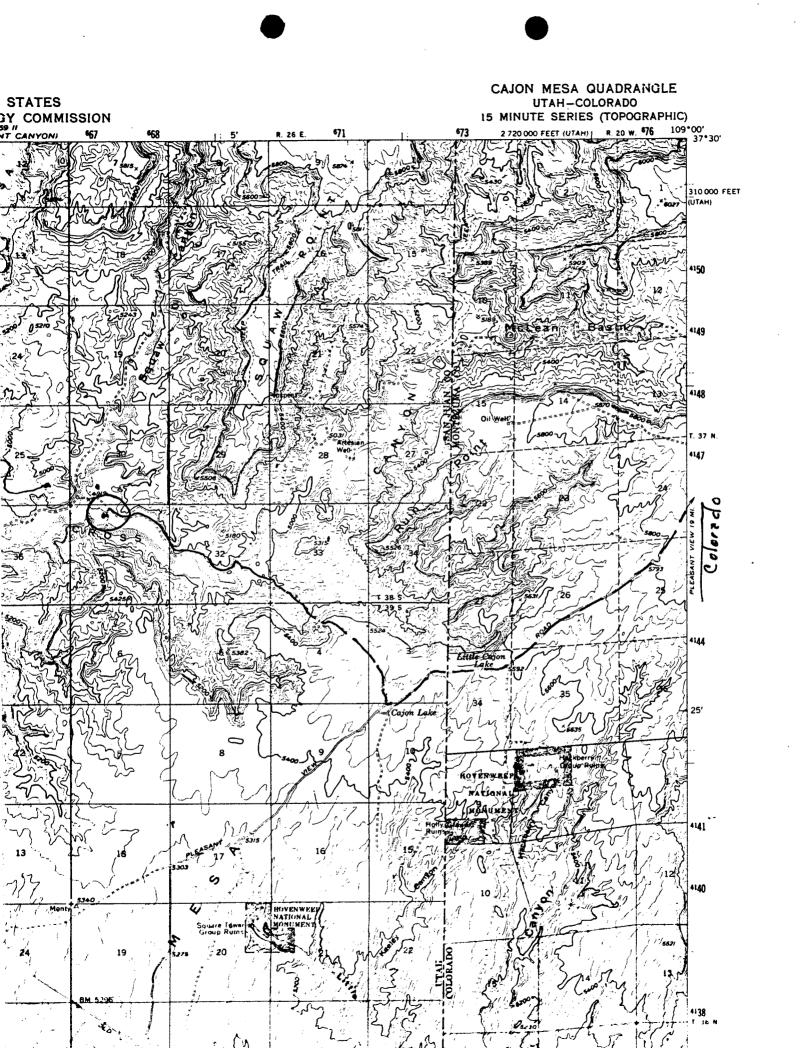
## **CERTIFICATION**

I hereby cetify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Santa Fe Energy Operating Partners, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

/2-3-86 Date:

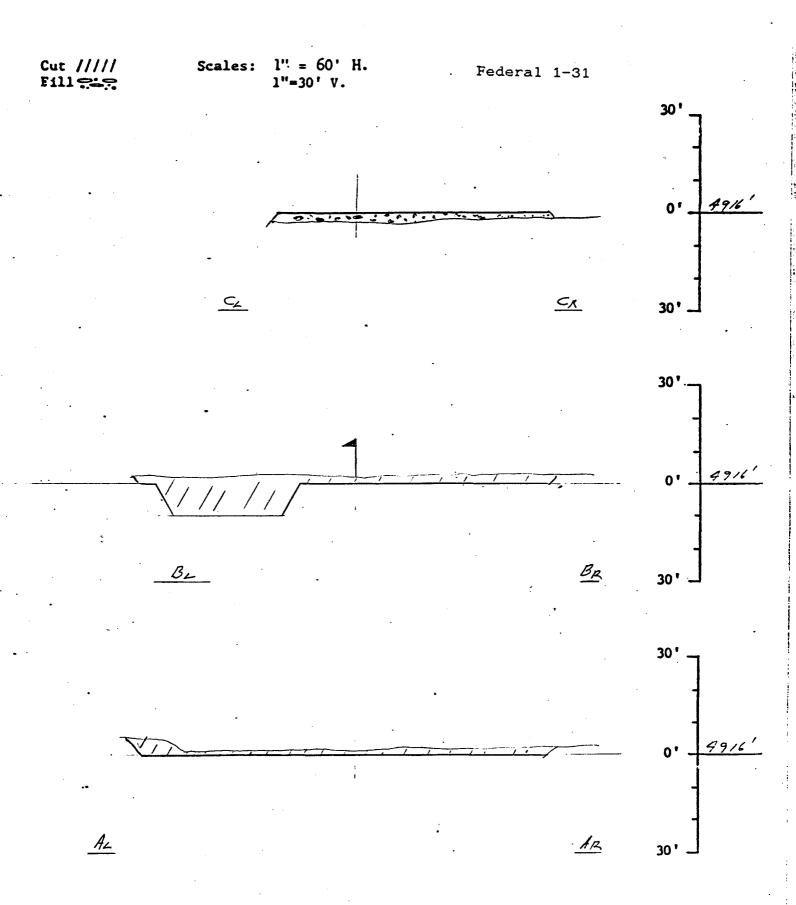
SANTA FE ENERGY OPERATING PARTNERS, L.P.

Jack H. White

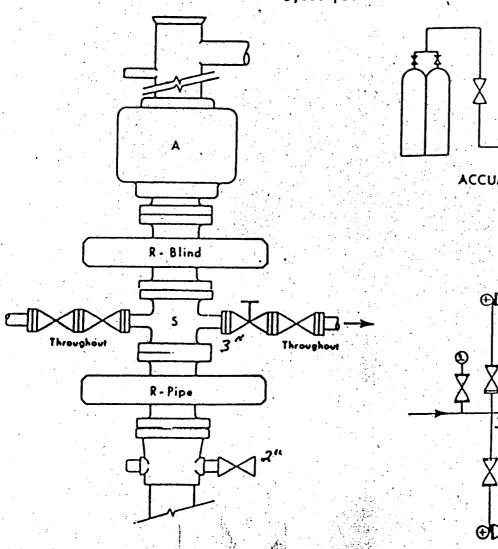


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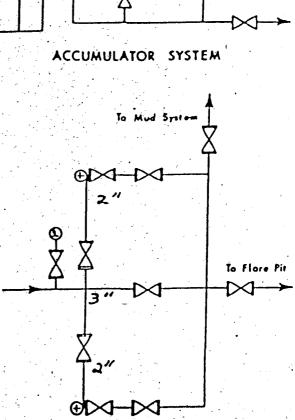
# WELL PAD CROSS-SECTION



# PRESSURE RATING 3,000 psi

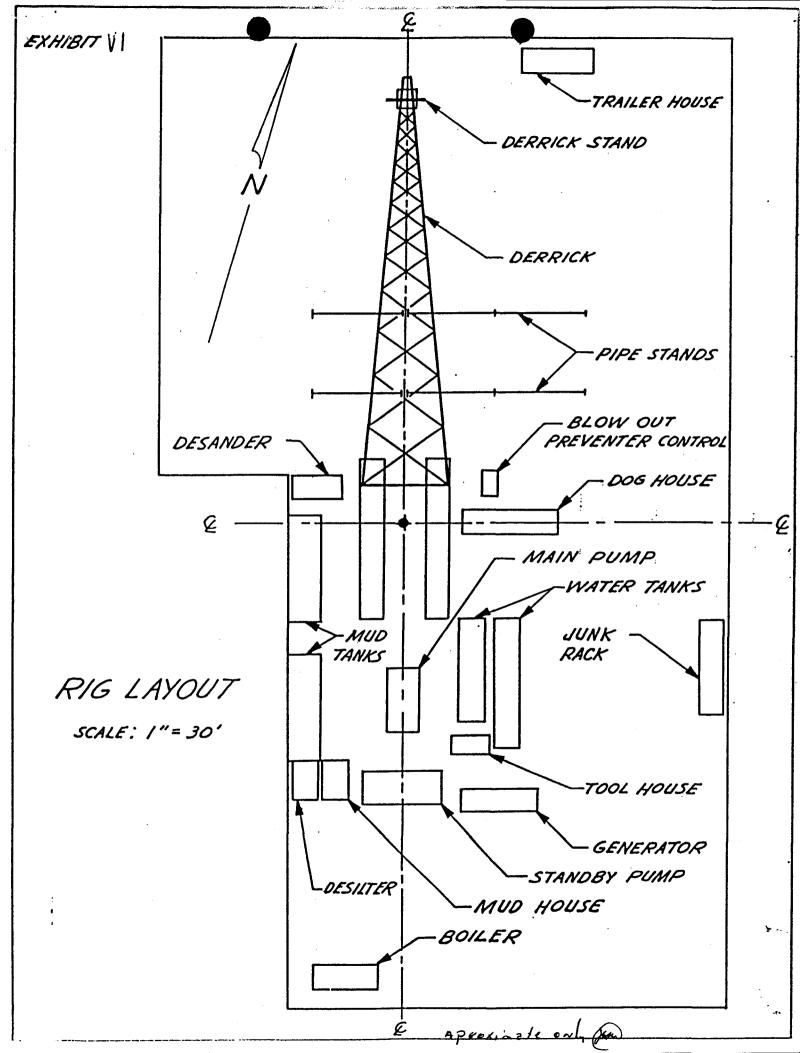


BLOWOUT PREVENTION STACK

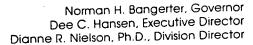


Flanged Connections Throughout
MANIFOLD SYSTEM

Approxime to Jun



OPERATOR Senta the Energy WELL NAME FERRAL 1-31	of farthers, Lite
OPERATOR Santa or Conergo	y peratings DATE 12-9-86
SEC NE NW 3/ T 385 R =	REE COUNTY Sen Joseph
43-039- 31297 API NUMBER	TYPE OF LEASE
CHECK OFF:	THE OF LEASE
PLAT	BOND NEAREST WELL
LEASE	FIELD POTASH OR OIL SHALE
PROCESSING COMMENTS:  Mo other wells in Sec 31.	
need water germit	
APPROVAL LETTER:	
SPACING: 203 UNIT	302
CAUSE NO. & DA	302.1
STIPULATIONS: 1 - Water	





355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

December 11, 1986

Santa Fe Energy Operating Partners, L. P. 1616 Glenarm Place, Suite 2600 Denver, Colorado 80202

#### Gentlemen:

Re: Federal 1-31 - NE NW Sec. 31, T. 38S, R. 26E 500' FNL, 1800' FWL - San Juan County, Utah

Approval to drill the referenced well is hereby granted in accordance with Rule 302, Oil and Gas Conservation General Rules, subject to the following stipulations:

 Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

In addition, the following actions are necessary to fully comply with this approval:

- Spudding notification to the Division within 24 hours after drilling operations commence.
- Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
- 3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.
- Compliance with the requirements and regulations of Rule 311.3, Associated Gas Flaring, Oil and Gas Conservation General Rules.

Page 2 Santa Fe Energy Operating Partners, L. P. Federal 1-31 December 11, 1986

- 5. Prior to commencement of the proposed drilling operations, plans for toilet facilities and the disposal of sanitary waste at the drill site shall be submitted to the local health department having jurisdiction. Any such drilling operations and any subsequent well operations must be conducted in accordance with applicable State and local health department regulations. A list of all local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 533-6163.
- 6. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31297.

Sincerely,

Absociate Director, Oil & Cas

as

Enclosures

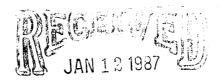
cc: Branch of Fluid Minerals

D. R. Nielson

8159T



Central Division-Rocky Mountain District Security Life Building Suite 2600 Denver, Colorado 80202-4330 303/825-5101



012001

DIVISION OF OIL. GAS & MINING

January 8, 1987

Bureau of Land Management Box 970 Moab, UT 84532

Attn: Fluid Minerals Branch

Gentlemen:

Please stop processing our APD's for the Federal #1-30 and #1-31 wells in T38S-R25E) San Juan County, Utah. Santa Fe Energy Company will not drill these wells.

Yours very truly,

John S. McCatharn

Senior Drilling Engineer Rocky Mountain District

JSM:sew

cc: State of Utah

JSM

Well File

State has not received APD for Fed 1-30.

Dicky



Norman H. Bangerter, Governor Dee C. Hansen, Executive Director Dianne R. Nielson, Ph.D., Division Director

.355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

January 21, 1987

Santa Fe Energy Operating Partners, L.P. 1616 Glenarm Place, Suite #2600 Denver, Colorado 80202

Gentlemen:

RE: Well No. Federal #1-31, Sec.31, T.38S, R.26E, San Juan County, Utah, API NO. 43-037-31297

Per your request, approval to drill the subject well is hereby rescinded. A new Application for Permit to Drill must be filed with this office for approval,  $\underline{prior}$  to future drilling of the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely,

John R. Baka

Petroleum Engineer

sb

cc: BLM-Moab

D. R. Nielson

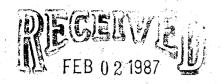
J. Firth و R

Well file

0327T-43

87013)

3162 (U-UDD)



Moab District P. O. Box 970 Moab, Utah 84532 (U-51688)

DIVISION OF OIL. GAS & MINING

JAN 29 1987

Santa Ye Energy Operating Partners L. P. 1616 Glenarm Place, Suite 2600 Denver, CO 80202

Re: Returning Application for Permit to Drill
Well No. Federal 1-31
Sec. 31, T. 38 S., R. 26 E.
San Juan County, Utah

Lease U-51688

## Gentlemen:

The Appplication for Permit to Drill the above well was received December 5, 1986. According to your letter dated January 8, 1987, we were advised that Santa Fe Energy Operating Partners L.P., has decided not to pursue the approval of this application at this time.

In view of the foregoing, we are returning your Application for Permit to Drill. Should you intend to drill this location at a future date, a new application must be submitted.

If you have any questions, please contact the Branch of Fluid Minerals (801) 259-6111.

Sincerely yours,

/S/ GENE NODINE
District Manager

Enclosure:
Application for Permit to Drill

cc: San Juan Resource Area State of Utah, Division of Oil, Gas, Mining (Wolnelosure)

CFreudiger/cf 1/28/87